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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Gunther Gschossmann

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EXAMINER

PATEL, DHARTI HARIDAS

ART UNIT

PAPER NUMBER

2836

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,381	Applicant(s) GSCHOSSMANN ET AL.	
	Examiner DHARTI H. PATEL	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

The applicant is advised that a certified English translation of the applicant's foreign priority document GERMANY 103 47 118.9 is required in order to claim full benefit of the foreign priority date.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-12 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morsch, DE 3425235.

With respect to claim 8, Morsch discloses a circuit arrangement for protecting electronic circuits against overvoltage. Morsch discloses a normally closed switching element [Fig. 2, V-MOS transistor 2] inserted into a circuit for a current supply of the electronic circuit, the switching element [Fig. 2, V-MOS transistor 2] being switchable into an open state via a detecting arrangement to detect an overvoltage [Fig. 2; consists of diode 1 and transistor 4] in one of a first sensor line [Fig. 2; positive power line] and a second sensor line [Fig. 2; negative power line], to prevent an overvoltage that is damaging to the electronic circuit [abstract, lines 1-8]. However, Morsch does not disclose a circuit arrangement for protecting a rotary speed sensor of a vehicle against overvoltage.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to specifically protect a generic rotary sensor from overvoltage, since it is well known in the art that electrical sensors need overvoltage protection to prevent from being damaged, and that all electrical circuits/sensors can and will benefit from overvoltage protection since the circuits/sensors are in fact electrical in nature.

Furthermore, the examiner notes that all the claimed elements of applicant's invention are well known in the prior art (e.g. the active rotary speed sensor, and the overvoltage protection circuit comprising a switch being switchable into open and close states) and one skill in the art could have combined the elements as claimed by known method with no change in their respective function (i.e. the combination would result in a speed sensor with overvoltage protection), and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. See KSR, 127 S. Ct. at 1740, 82 USPQ2d at 1396.

With respect to the limitation of an electronic circuit configuration for connecting at least one active rotary speed sensor of a vehicle in a preamble, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

With respect to claims 9 and 15, Morsch discloses that the normally closed switching element includes a transistor [Fig. 2; V-MOS transistor 2]; and a base terminal of the transistor is controlled by the means for detecting the overvoltage [Fig. 2; a base

terminal of the transistor 2 is controlled by the detecting arrangement (diode 1 and transistor 4) via a disconnection controller (transistor 6 and Zener diode 8)].

With respect to claims 10 and 16, Morsch discloses that the detecting arrangement includes a diode device [Fig. 2, 1], and the diode device [Fig. 2, 1] controls a second transistor [Fig. 2, 10] via at least one Z diode [Fig. 2; 8] serving as a threshold value element which, in turn, switches the switching element [Fig. 2; V-MOS transistor 2] into the open state [abstract, lines 1-7].

With respect to claims 11 and 17, Morsch discloses that the sensor is designed for a lower operating voltage than an electrical system voltage of the vehicle [The operating voltage of the sensor can be any desired voltage, based on the particular application. In this case, a reason for utilizing a voltage lower than system voltage is to accomplish cost savings by using lower rated electronic components, as well as reducing heat dissipation in the electronic components themselves].

With respect to claims 12 and 18, Morsch discloses that the signal conditioning circuit includes a comparator [Fig. 2; 11].

With respect to claim 14, Morsch discloses a circuit arrangement for protecting electronic circuits against overvoltage. Morsch discloses a normally closed switching element [Fig. 2, V-MOS transistor 2] inserted into the circuit for a current supply of the electronic circuit, the switching element [Fig. 2, V-MOS transistor 2] being switchable into an open state via a detecting arrangement to detect an overvoltage [Fig. 2; consists of diode 1 and transistor 4] in one of a first sensor line [Fig. 2; positive power line] and a second sensor line [Fig. 2; negative power line], in order to prevent an overvoltage that

Art Unit: 2836

is damaging to the electronic circuit [abstract, lines 1-8]. However, Morsch does not disclose a motor vehicle comprising a circuit arrangement for protecting a rotary speed sensor of a vehicle against overvoltage. With respect to the motor vehicle limitation, the examiner notes that this is cited in the preamble only. See MPEP 2111.02 II.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to specifically protect a generic rotary sensor from overvoltage, since it is well known in the art that electrical sensors need overvoltage protection to prevent from being damaged, and that all electrical circuits/sensors can and will benefit from overvoltage protection since the circuits/sensors are in fact electrical in nature.

Furthermore, the examiner notes that all the claimed elements of applicant's invention are well known in the prior art (e.g. the active rotary speed sensor, and the overvoltage protection circuit comprising a switch being switchable into open and close states) and one skill in the art could have combined the elements as claimed by known method with no change in their respective function (i.e. the combination would result in a speed sensor with overvoltage protection), and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. See KSR, 127 S. Ct. at 1740, 82 USPQ2d at 1396.

With respect to the limitation of an electronic circuit configuration for connecting at least one active rotary speed sensor of a vehicle in a preamble, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claims 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morsch, DE 3425235, in view of Qu et al., Publication No. US 2004/0016461.

Morsch does not disclose that the control unit includes a microcontroller for an input-side supply of the rotary speed signal.

With respect to claims 13 and 19, Qu discloses that the control unit includes a microcontroller [par. 0017 lines 1-4].

Morsch and Qu are analogous overvoltage protection circuits. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Qu's microcontroller, into Morsch's overvoltage protection circuit arrangement, for the benefit of recording overvoltage events for further processing such as trouble shooting and establishing future trends.

Response to Arguments

Applicant's arguments filed 03/14/2008 have been fully considered but they are not persuasive.

Applicant comments on page 4 of the REMARKS regarding claims 8 and 14 that the prior art does not disclose or suggest "an electronic circuit configuration...to prevent an overvoltage that is damaging to the active rotary speed sensor."

The examiner points out that the Morsch reference discloses an overvoltage protection circuit, but does not disclose that this overvoltage protection circuit prevents an overvoltage that is damaging to the active rotary speed sensor. However, the examiner states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to specifically protect a generic rotary sensor from

Art Unit: 2836

overvoltage, since it is well known in the art that electrical sensors need overvoltage protection to prevent from being damaged, and that all electrical circuits/sensors can and will benefit from overvoltage protection since the circuits/sensors are in fact electrical in nature [see above rejection].

Applicant comments on page 6 of the REMARKS regarding claims 8 and 14 that the office action relies upon the VMOS transistor 2 as being normal closed switching element, but the English abstract of the Morsch reference states that a disconnection controller [Fig. 1, 2; elements 3 and 6] drives the V-MOS transistor into a completely blocked state when the input voltage is exceeded. That is, the VMOS transistor is not a normally open element, as provided for in the context of the claim subject matter.

The examiner points out that the VMOS transistor 2 of Morsch is normally closed switching element, which opens [blocked state] when there is an overvoltage condition. The VMOS transistor 2 reads on the limitation of a normally closed switching element [which is same as not a normally open element], as provided for in the context of the claimed subject matter.

Applicant comments on pages 5 and 6 of the REMARKS regarding claims 8 and 14 that the examiner relies on hindsight in reaching obviousness determination...One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

The examiner forecloses this argument and states that all the claimed elements of applicant's invention are well known in the prior art (e.g. the active rotary speed sensor, and the overvoltage protection circuit comprising a switch being switchable into

open and close states) and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions (i.e. the combination would result in a speed sensor with overvoltage protection), and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. See KSR, 127 S. Ct. at 1740, 82 USPQ2d at 1396.

Based on examiner's best understanding, it is believed that the prior art reference by Morsch reads on the amended claim language of independent claims 8 and 14.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dharti H. Patel whose telephone number is 571-272-8659. The examiner can normally be reached on 7:00 am - 5:00 pm.

Art Unit: 2836

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2800, Ext. 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Sherry/

Supervisory Patent Examiner, Art Unit 2836

/Dharti H Patel/

Examiner, Art Unit 2836

06/10/2008